

pixels in frames which precede and which follow the reference frame.

10. (AMENDED) A method according to claim 1, wherein the reference frame comprises one of an intramode (I) frame and a predictive (P) frame; and

wherein the N target frames comprise at least one of a P frame and a bi-directional (B) frame.

22. (AMENDED) Computer-executable process steps according to claim 14, wherein the reference frame comprises a bi-directional (B) frame; and

wherein the computer-executable process steps further comprise a code to determine a location of the first block in the reference frame based on blocks of pixels in frames which precede and which follow the reference frame.

23. (AMENDED) Computer-executable process steps according to claim 14, wherein the reference frame comprises one of an intramode (I) frame and a predictive (P) frame; and

wherein the N target frames comprise at least one of a P frame and a bi-directional (B) frame.

35. (AMENDED) An apparatus according to claim 27, wherein the reference frame comprises a bi-directional (B) frame; and

wherein, 'before selecting the first block, the processor executes process steps so as to determine a location of the first block in the reference frame based on blocks of pixels in frames which precede and which follow the reference frame.

36. (AMENDED) An apparatus according to claim 27, wherein the reference frame comprises one of an intramode (I) frame and a predictive (P) frame; and

wherein the N target frames comprise at least one of a P frame and a bi-directional (B) frame.

42. (AMENDED) A television system which receives coded video data, and which forms images based on the coded video data, the television system comprising:

a decoder which decodes the video data to produce frames of video;

a processor which increases a resolution of a reference frame of the video based on pixels in the reference frame and based on pixels in at least one other target frame of the video; and

a display which displays an image based on the reference frame;

wherein the processor increases the resolution of the reference frame by selecting blocks of pixels in the reference frame and, for each selected block, (i) locating,

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in N (N^3) target frames, one or more blocks of pixels that substantially correspond to the first block of pixels, where the N target frames are separate from the reference frame; (ii) determining values of additional pixels based on values of pixels in the selected block and on values of pixels in the one or more blocks, and (iii) adding the additional pixels among the pixels in the selected block.

45. (TWICE AMENDED) A method according to Claim 4, wherein the locating step locates the one or more blocks using motion vectors present in a coded bitstream for the target frames; and

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wherein the coefficients are determined using DCT values of at least one coded residual, where the at least one coded residual comprises differences between the reference frame and the target frame(s).

46. (TWICE AMENDED) Computer-executable process steps according to Claim 17, wherein the locating code locates the one or more blocks using motion vectors present in a coded bitstream for the target frames; and

wherein the coefficients are determined using DCT values of at least one coded residual, where the at least one coded residual comprises differences between the reference frame and the target frame(s).
